

**IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF PENNSYLVANIA**

**Allstate Property and Casualty Insurance
Company a/s/o Duane and Sheri Koons**

Plaintiff

v.

**Haier US Appliance Solutions, Inc. d/b/a GE
Appliances and General Electric Company**

Defendants

Civil Action No: 1:20-cv-00365-CCC

(Hon. Christopher C. Conner)

JURY TRIAL DEMANDED

**BRIEF IN SUPPORT OF
DEFENDANTS' DAUBERT MOTION
TO PRECLUDE PLAINTIFF'S EXPERT, MICHAEL ZAZULA,
FROM OFFERING OPINIONS REGARDING CAUSATION**

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I. PROCEDURAL HISTORY

This is a products liability and subrogation action in which Plaintiff Allstate claims that an allegedly defective GE-brand range caused fire to the home of Plaintiff's insureds, Duane and Sheri Koons. Plaintiff originally filed suit in the Court of Common Pleas of Lebanon County, Pennsylvania. Defendants timely removed the case to this Court on March 2, 2020, on the basis of diversity jurisdiction. The parties have since completed fact and expert discovery.

Pursuant to the Court's most recent scheduling Order, issued March 5, 2021, Defendants now submit the instant Daubert motion, challenging certain the fire causation opinions of Plaintiff's expert Michael Zazula. Defendants are contemporaneously filing two other Daubert motions, as well as a Motion for Summary Judgment.

II. STATEMENT OF FACTS

1. The incident

On or about June 7, 2018, Duane and Sheri Koons left their home for several days of vacation. See Report of Michael Zazula, attached hereto as Exhibit "A," at 2. Two days later, on June 9, a fire occurred at the Koons home. See id. Plaintiff's fire investigator Roger Spadt reported that two of the burner control knobs on the Koons' gas range were found to be activated. See Report of Roger Spadt, attached hereto as Exhibit "B," at 8.² It is Plaintiff's position that the burner control knobs on the Koons' range were susceptible to accidental activation. See Complaint, attached hereto as Exhibit "C," at ¶ 13.

At his deposition, Mr. Koons testified that he had no reason to believe that he or his wife had left the range knobs on when they had left their home for vacation. See Deposition transcript

² Mr. Spadt's information is third-hand, as he is conveying an interview with Duane Koons, who himself was relaying what he was told by Fire Chief Vragovich. See Exhibit "B" at 8. The evidence on this point is mixed, as Mr. Koons and Chief Vragovich have slightly different recollections of their conversation. For purposes of this Motion, Mr. Spadt's version is being reported, as it is the basis for the opinions of Michael Zazula.

of Duane Koons, attached hereto as Exhibit “D,” at 42:22-43:20. He testified that, in the many years they had owned the range, neither of them had ever accidentally activated the range in the manner alleged by Plaintiff. See id. at 43:21-44:6. In fact, Mr. Koons believed they did not leave the range on, because, if they had, he or his wife would have smelled gas coming from the range. See id. at 58:11-17. When one of the firefighters mentioned to Mr. Koons after the fire that one or two of the knobs were found to be on, Mr. Koons rejected outright the possibility that he or his wife had turned them on: “‘There’s no way.’ I said, ‘We’ve been gone for two days.’ I said, ‘It’s impossible.’” See id. at 40:24-42:6.

Mrs. Koons likewise testified that she had no reason to believe she had left the burner control knobs on, and that she had never experienced such an occurrence before. See Deposition testimony of Sheri Koons, attached hereto as Exhibit “E,” at 62:11-63:21 (no prior problems with the knobs); 81:10-16 (no basis to doubt they were off when she left the home).

2. *The opinions of Plaintiff’s expert, Michael Zazula*

Although Mr. and Mrs. Koons both denied accidentally activating the range, Plaintiff’s expert Michael Zazula concludes that “accidental/inadvertent contact/rotation of the gas burner valve can and does occur.” See Exhibit “A” (Zazula rpt.) at 14. Mr. Zazula elaborated at his deposition that “clearly this is something that occurs,” citing to an episode of the HBO series The Sopranos, his fiancée’s own anecdotal experience with a different manufacturer’s range, and YouTube videos of dogs jumping up onto ranges. See Deposition of Michael Zazula, attached hereto as Exhibit “F,” at 152:10-153:11 (Sopranos, “clearly this is something that occurs”); 66:22-67:24 (fiancée, “it’s clearly an issue”); 168:22-169:12 (YouTube videos of dogs).

Based on the assumption that Mr. and Mrs. Koons turned on the range no later than when they left their home at 3:30 p.m. on June 7, Mr. Zazula concluded that fugitive gas would have

been accumulating in the house for at least 41.5 hours. See Exhibit “A” (Zazula rpt.) at 5; Exhibit “F” (Zazula dep.) at 122:24-123:23 (starting point of 3:30 is an uncertain data point). He then speculated that that gas was ignited “by a competent ignition source within the home. Possibly the refrigerator.” See Exhibit “A” (Zazula rpt.) at 14. Notably, neither of Plaintiff’s experts thought it necessary to preserve – or even inspect – the refrigerator, despite concluding it was the ignition source of the fire. See Exhibit “F” (Zazula dep.) at 87:1-17 (refrigerator not preserved); 255:23-256:9 (refrigerator not inspected); see also Deposition of Roger Spadt, attached hereto as Exhibit “G,” at 203:20-204:10 (no one inspected the refrigerator).

3. *Principles of Gas Accumulation*

The mere presence of LP gas in a home will not result in a fire; there must be a certain concentration of the gas in the atmosphere. Below this threshold percentage, also known as the “lower explosive limit” or “LEL,” LP gas simply will not ignite, even if exposed to an ignition source. See, e.g., Exhibit “F” (Zazula dep.) at 259:1-17. Beyond the LEL threshold, LP gas may alternately result in a fire or an explosion, depending on a number of factors such as the amount and percentage of LP gas present, the amount and percentage of oxygen, and the layout of the room in which the gas is accumulating. See id. at 260:7-261:7. If the concentration of LP gas is increased still further, it may exceed the “upper explosive limit,” or “UEL,” beyond which the concentration would be too rich, and would no longer be capable of ignition. See id. at 259:18-260:14; 271:3-9; see also Deposition transcript of defense expert Donald Hoffmann, attached hereto as Exhibit “H, at 181:20-182:22; 189:11-190:18 (explaining these principles).

Mr. Zazula further acknowledged that hundreds of factors influence and impact where and how LP gas will accumulate in a home, and therefore whether an ignition source will cause a fire, an explosion, or no ignition at all; these factors include air movement, dynamics of the

home, stratification of gas within the home, atmospheric pressure, the temperature inside the home, the temperature outside the home, relative humidity, and many others. See Exhibit “F” (Zazula dep.) at 267:4-270:5; 306:16-308:2.

4. *Mr. Zazula’s methodology*

Mr. Zazula’s report suggests that he utilized the methodology outlined in the NFPA 921 Guide for Fire and Explosion Investigations. See Exhibit “A” (Zazula rpt.) at 3. At his deposition, though, Mr. Zazula admitted that most of NFPA 921 is used to determine the origin and cause of a fire, and is “just not applicable” to his analysis. See Exhibit “F” (Zazula dep.) at 74:4-76:5. He clarified that he used “parts of 921,” specifically the scientific method. See id.

As will be laid out in more detail in the Argument section below, Mr. Zazula did not actually follow the scientific method in this case. Though he may have formulated the hypothesis that this fire was caused by the ignition of accumulated fugitive gas, Mr. Zazula did not test that hypothesis. He did not measure, test, or take into account the many variables that affect gas accumulation, nor could he say how much gas had actually accumulated in the Koonses’ home, or where. See, e.g. id. at 273:22-274:1. Instead, he simply concluded that, because there was a fire, the conditions in the home must have been just right to allow such a fire to occur. See id. at 272:2-273:21; 306:16-308:2.

Defendants now bring the instant Daubert motion to challenge Mr. Zazula’s opinions regarding causation. As will be discussed herein, Mr. Zazula’s opinions that the fire was caused by gas accumulating in the Koonses home until it was ignited by the refrigerator are not supported by a reliable methodology. Similarly, Mr. Zazula’s opinions that the fugitive gas was emitted after the burner control knobs on the Koonses’ range were accidentally activated are not supported by any relevant evidence, and therefore do not “fit” this case.

III. STATEMENT OF QUESTIONS INVOLVED

- (1) Should Michael Zazula be precluded from offering testimony that the fire was caused by the accidental activation of the range's burner knobs, when the evidence of record is to the contrary, and therefore that opinion does not "fit" the facts of this case?
- (2) Should Michael Zazula be precluded from offering testimony that the fire was caused by the accumulation of fugitive gas, when he lacks a reliable methodology to support that opinion?
- (3) Should Michael Zazula be precluded from offering testimony that the fire was caused when fugitive gas was ignited by the Koonse's refrigerator, when he lacks a reliable methodology to support that opinion?

Suggested Answers (1-3): Yes.

IV. ARGUMENT

1. *The Daubert standard*

In Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993), the United States Supreme Court established a "gate keeping role for the judge" in applying Federal Rule of Evidence 702, the purpose of which is "to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137, 152 (1999). The proponent of an expert's testimony must prove, by a preponderance of the evidence, that his testimony is reliable under Daubert. Oddi v. Ford Motor Co., 234 F.3d 136, 144 (3d Cir. 2000) (citation omitted).

The Third Circuit has defined the requirements of Rule 702 under Daubert as a "trilogy" requirement: qualification, reliability, and fit. Calhoun v. Yamaha Motor Corp., 350 F.3d 316, 321 (3d Cir. 2003). In other words:

1. the witness proffered to testify to specialized knowledge must be an expert;
2. the expert must testify to reliable scientific, technical, or other specialized knowledge; and

3. the expert's testimony must assist the trier of fact, *i.e.*, it must "fit" the facts of the case at hand.

See In re Paoli R. R. Yard PCB Litig., 35 F.3d 717, 741-43 (3d Cir. 1994) ("Paoli II"). The proponent of the expert testimony must make a detailed showing of scientific validity and cannot rely on mere conclusory allegations to that effect. See In re Paoli R. R. Yard PCB Litig., 916 F.2d 829, 858 (3d Cir. 1990) ("Paoli I"). This standard requires more than a mere *prima facie* showing by the plaintiff. See Paoli II, 35 F.3d at 743 n.9.

2. *Mr. Zazula's opinions regarding the accidental activation of the burner knobs do not "fit" this case.*

Again, Mr. Zazula's theory is that Mrs. Koons may have accidentally activated the range's burner control knobs, allowing fugitive gas to escape, ultimately resulting in a fire. See Exhibit "A" at 13-14. The premise of that conclusion, that the burner control knobs were accidentally activated, rests solely on speculation, and is contradicted by the evidence of record, and therefore does not "fit" this case.

"Fitness" is the final requirement in the Daubert analysis required. An expert's opinion must "fit" the facts of the case; in other words, the court must examine the expert's conclusions "in order to determine whether they could reliably flow from the facts known to the expert and the methodology used." Oddi, 234 F.3d at 146. Indeed, in order to be admissible, an expert's testimony must have some connection to existing facts. Brill v. Marandola, 540 F. Supp. 2d 563, 568 (E.D. Pa. 2008). "Expert testimony that ignores existing data and is based on speculation is inadmissible." Id. Similarly, "expert testimony based on assumptions lacking factual foundation in the record is properly excluded." Meadows v. Anchor Longwall and Rebuild, 306 Fed. App'x 781, 790 (3d Cir. 2009).

State Farm v. Steffen is an instructive case. See State Farm v. Steffen, 948 F. Supp. 2d 434 (E.D. Pa. 2013). Like this case, Steffen was a fire damage subrogation case. See id. at 436. The plaintiff's expert contended that the fire was caused by the defendant's carelessly discarding smoking materials in a trash can. See id. at 442. Upon taking a closer look at this conclusion, though, the court found that it was "not based on sufficient facts or data." See id. The sole factual basis for the expert's conclusion was that the defendant was a smoker; he simply assumed without evidence that the defendant had dropped the smoking materials into the trash can, and that there were combustibles present to be ignited. See id. at 443. "After peeling away the layers of assumption," the court found that the expert's opinion was based on nothing more than a "hunch" that a smoker had caused the fire. See id. That was insufficient to satisfy Daubert's "evidence and data-based standard," and the expert's opinion was held inadmissible. Id.

Mr. Zazula's opinions regarding the accidental activation of the burner control knobs are likewise based on assumptions and hunches, rather than evidence. Both Mr. and Mrs. Koons denied ever accidentally activating the knobs on the range in the many years they had owned it, and they had no reason to believe they had done so on this occasion. Mr. Koons told the investigating first responders that it was "impossible" that such a thing had happened. See Exhibit "D" (Mr. Koons dep.) at 40:24-44:6; Exhibit "E" (Mrs. Koons dep.) at 62:11-63:21-81:10-16.

Ignoring this evidence, Mr. Zazula instead cites to YouTube videos involving dogs, the anecdotal experience of his own fiancée, and an episode of the HBO drama series The Sopranos as evidence that "this is something that occurs." See Exhibit "F" (Zazula dep.) at 152:10-153:11 (Sopranos); 66:22-67:24 (fiancée); 168:22-169:12 (Youtube videos of dogs)³. Even aside from

³ Indeed, Mr. Zazula admitted that the two YouTube videos he relied upon involved a different fact pattern than the one at issue in this case. See Exhibit "F" (Zazula dep.) at 162:10-24 (first YouTube video); 167:6-11 (second

the irrelevance and inadmissibility of such “evidence,” Mr. Zazula’s reliance on the experiences of others, including fictional and non-human others, is entirely inappropriate when we can examine the circumstances of Mr. and Mrs. Koons themselves.

Mr. Zazula’s opinions regarding the accidental activation of the burner control knobs do not bear a sufficient connection to the existing facts in this case – they are not based on reliable data or evidence – and so must be precluded. See Steffen, 948 F. Supp. 2d at 442-43.

3. Mr. Zazula lacks a reliable methodology to support his opinions regarding the cause of the fire

Mr. Zazula takes the unsupported premise that the Koonses’ range was emitting gas for two days, as well as the observation that a fire occurred, and jumps from “Point A” to “Point C” without doing the necessary work to connect the two. Simply put, Mr. Zazula failed to test his hypothesis that accumulating gas was ignited by the refrigerator. As will be explained herein, the scientific literature on this issue indicates that LP gas would not ignite in the circumstances presented by the Koonses’ home. Mr. Zazula reaches the opposite conclusion, though, without offering any tests, measurements, or observations to explain his findings. For lack of a reliable methodology – indeed, for lack of any methodology – Mr. Zazula’s opinions regarding gas accumulation must be precluded.⁴

To be admissible, an expert's testimony must be reliable, that is to say, based on reliable methodology. See Oddi v. Ford Motor Co., 234 F. 3d 136, 144 (3d Cir. 2000) (citing Daubert v.

video). Also of note, at least one of the videos appears to be staged, as it identifies itself as an “Ad” and is accompanied by a link to purchase a pet safety device from Amazon.com. See id. at 167:12-168:21.

⁴ The lack of underlying rationale for Plaintiff’s causation opinion is underscored by the way it is presented. Mr. Zazula’s report explains that it was Roger Spadt, Plaintiff’s fire investigator, who concluded that the fire was caused by the ignition of fugitive gas. See Exhibit “A” (Zazula rpt.) at 2. But Mr. Spadt’s report says the opposite: Spadt is relying on Zazula for the fire cause determination! See Exhibit “B” (Spadt rpt) at 12 (“In consultation with Engineering Consultant Michael Zazula, he indicated this fire was caused by...”). And at his deposition, Mr. Spadt repeatedly deferred to Mr. Zazula for an explanation of the gas accumulation theory. See, e.g., Exhibit “G” (Spadt dep.) at 189:21-191:3; 197:8-19; 202:22-203:6; 233:11-234:4. Each is apparently relying on the other, but neither has good grounds for their causation opinion.

Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993)). As one court put it, "If Daubert and its progeny require anything, it is that plaintiffs come forward with proof of a valid methodology based on more than just the ipse dixit of the expert." Pappas v. Sony Elecs., Inc., 136 F. Supp. 2d 413, 426 (W.D. Pa. 2000). Put another way, an expert's opinion must be "based on the methods and procedures of science rather than on subjective belief or unsupported speculation; the expert must have good grounds for his or her belief." Calhoun v. Yamaha Motor Corp., 350 F.3d 316, 321 (3d Cir. 2003) (internal quotations omitted).

The courts of this Circuit have repeatedly found a lack of demonstrable methodology to be fatal to the admissibility of expert testimony. See, e.g., Oddi, 234 F.3d at 156, 158; see also Scrofani v. Stihl Inc., 44 F. App'x 559, 562 (3d Cir. 2002) (upholding the exclusion of an expert's opinions regarding alleged design and warning defects because he "failed to base his conclusions on sufficient data and his methodologies were either nonexistent or wholly unreliable"); Furlan v. Schindler Elevator Corp., 864 F. Supp. 2d 291, 298 (E.D. Pa. 2012) (holding expert's opinions unreliable when he had conducted no tests, used little to no methodology beyond his own intuition, and applied no standards other than his own perception).

Though the NFPA 921 guide to fire investigations is commonly found to be a reliable methodology, it is not enough for an expert simply to invoke 921 and evade Daubert scrutiny. NFPA 921 is "a lengthy and specific document that contains detailed discussions of everything from motor vehicles and Molotov cocktails to explosions and electrical fires." See Booth v. Black & Decker, Inc., 166 F. Supp. 2d 215, 220 (E.D. Pa. 2001). If an expert does not identify a specific methodology from within NFPA 921 that guided his investigation, a simple reference to that document will not suffice to render his testimony admissible. See id. Similarly, if an expert

cites to NFPA 921, but fails to faithfully apply its provisions, that expert's methodology is unreliable. See State Farm v. Steffen, 948 F. Supp. 2d 434, 446 (E.D. Pa. 2013).

If an expert formulates a hypothesis, but fails to test it, there is no methodology to be evaluated, and the expert must be precluded as unreliable. See Maldonado v. Walmart Store No. 2141, 2011 WL 1790840, *11 (E.D. Pa. May 10, 2011); see also Booth, 166 F. Supp. 2d at 221 (excluding expert who "performed no tests of his own to determine whether his hypotheses were indeed true; he merely examined the toaster oven and concluded it could have been safer").⁵

- a. Mr. Zazula's opinions regarding gas accumulation are not supported by a reliable methodology.

Mr. Zazula's opinions regarding the cause of this fire lack a reliable methodology.

Though his report invokes NFPA 921, that alone is not sufficient to survive Daubert scrutiny; this Court must assess what part of 921 Mr. Zazula is using and how. See Booth, 166 F. Supp. 2d at 220; Steffen, 948 F. Supp. 2d at 446. Here, Mr. Zazula admitted that most of NFPA 921 was inapplicable to his investigation, but that he did purport to follow the scientific method. See Exhibit "F" (Zazula dep.) at 74:4-76:5. Fatal to his opinions, though, Mr. Zazula did not actually follow the scientific method, as he failed to test his hypotheses. See Maldonado, 2011 WL 1790840 at *11; Steffen, 948 F. Supp. 2d at 446.

As noted in the Fact section above, LP gas that is exposed to an ignition source can result in one of three outcomes: fire, explosion, or no ignition at all. Scientific studies of residential

⁵ Daubert and its progeny have suggested a list of factors to consider when evaluating the reliability of a methodology: (1) whether a method consists of a testable hypothesis, (2) whether the method has been subject to peer review; (2) the known or potential rate of error; (4) the existence and maintenance of standards controlling the technique's operation; (5) whether the method is generally accepted; (6) the relationship of the technique to methods which have been established to be reliable; (7) the qualifications of the expert witness testifying based on the methodology; and (8) the non-judicial uses to which the method has been put. See, e.g., State Farm v. Steffen, 948 F. Supp. 2d 434, 441. But the list is flexible and will not apply in every case. Notably, when an expert conducts no testing, there is no methodology to evaluate, and it is meaningless to ask whether a lack of methodology has been subject to peer review, has a rate of error, and so forth. See, e.g., Maldonado, supra, 2011 WL 1790840, at *6, *11.

gas leaks have shown that the most likely outcome in this scenario would be no ignition at all: gas being emitted from the Koonse's range would not concentrate in sufficient quantities to exceed the lower explosive limit. See Exhibit "H" (Hoffmann dep) at 179:23-181:3; 201:3-19.⁶ The reason for this result is air exchange: the flow of air in and out of the house. Because residential homes are not airtight, air moves in and out of the home through windows and other leakage points. See, e.g. Report of defense expert Donald Hoffmann, attached hereto as Exhibit "J" at 9-10; see also Exhibit "H" (Hoffmann dep.) at 199:22-200:18. Because of this air exchange, the relatively small flow rate of LP gas from a gas range would not be sufficient to reach the LEL and ignite at all. See Exhibit "J" at 10; Exhibit "H" at 178:25-180:9. In contrast, if there were no air exchange in and out of the Koonse's home – not a real world assumption, but the one Mr. Zazula seems to be making – the accumulated gas would have resulted in an explosion, not a fire. See Exhibit "J" at 9; Exhibit "H" at 189:22-190:18.

Again, Plaintiff's expert Zazula prefers the third option, an option that is not scientifically feasible: that the gas accumulation would have resulted in a fire, but not an explosion. See Exhibit "J" (Hoffmann rpt) at 10; Exhibit "H" (Hoffmann dep) at 179:2-180:14. In reaching this conclusion, Mr. Zazula does not take the critical factor of air exchange into account. In fact, Mr. Zazula utterly failed to take any relevant factors into account. As noted in the Facts section above, Mr. Zazula identified a number of factors that affect where and how LP gas will accumulate in a home, and with what result. See Exhibit "F" (Zazula dep.) at See id. at 267:4-270:5; 306:16-308:2. These factors include, for example, air movement, dynamics of the home,

⁶ Dr. Hoffmann relies for this point in part on a relevant study of the topic: John L. Schumacher, Comparison of Measured and calculated Gas Concentrations from Flammable Gas Leaks in a Manufactured Home. A copy is attached as Exhibit "I."

stratification of gas within the home, atmospheric pressure, the temperature inside the home, the temperature outside the home, relative humidity, and many others. See id.

Mr. Zazula did not test or measure those factors, though. By his own admission, he did nothing to test or measure the air movement in the Koonse's home. See id. at 270:6-9. Nor did he measure or test the stratification of LP gas in the home. See id. at 271:10-16. In reaching his conclusions, he did not take into account the temperature or atmospheric pressure. See id. at 271:17-272:5. Mr. Zazula did not do any modeling to determine how or where the gas was accumulating in the Koonse's home. See id. at 273:22-274:1.

Instead, Mr. Zazula ignored all those myriad variables that determine how and where gas will accumulate, and simply concluded that, because a fire occurred, the variables must have been just right so as to result in a fire. When Mr. Zazula was asked why the fire occurred after 41.5 hours of alleged gas accumulation, and not earlier or later, he indicated that that was dictated by “[A]ll those variables. We talked about air movement. We talked about pressure. We talked about a lot of things that come into play here.” See Exhibit “F” (Zazula dep. at 272:20-273:21). ***Again, Mr. Zazula did not test, measure, or take into account those variables.*** See id. at 270:6-9 (did not test or measure air movement); 271:10-16 (did not test or measure gas stratification); 271:17-272:5 (did not take into account temperature or air pressure); 273:22-274:1 (did not model how or where gas was accumulating). Instead, he simply concluded: “It’s clearly not a question of if. It’s a question of when specifically.” See id. at 273:18-21. In other words, tautologically, the fire occurred after 41.5 hours because that’s when it happened.

Similarly, Mr. Zazula was asked why the gas accumulation resulted in a fire rather than explosion. Again, he referred to the various calculations he did not do, and the variables he did not consider, and explained that, because the result was a fire and not an explosion, he did not

need to do that work. See id. at 305:21-308:2. This results-oriented approach, which fails to consider the very factors he contends are important, “runs afoul of NFPA 921.” See Steffen, 948 F. Supp. 2d at 444 (precluding expert who succumbed to expectation bias and “reach[ed] a premature conclusion without having examined or considered all of the relevant data.”)

Plaintiff will likely argue that, in fact, Mr. Zazula conducted testing on an exemplar range to demonstrate that, at certain positions of the burner control knobs, the burners can emit gas without the igniter being active. Defendants dispute the import of this finding, but it still does not answer the critical questions raised by this motion. Even accepting Zazula’s results that gas can be emitted from the burners, that does not address (1) whether that did happen in this case, (2) whether gas accumulated in a sufficient concentration to be ignited into a fire, but not an explosion, and (3) whether the supposedly accumulating gas was ultimately ignited by the refrigerator. In other words, ***did the condition identified by Plaintiff cause this fire?*** In this regard, Mr. Zazula’s methodology falls woefully short. See, e.g., Maldonado, supra, at *10 (separately considering expert’s methodology, or lack thereof, with respect to defect and causation opinions).

For the reasons set forth in their expert report, Defendants dispute that a gas leak even occurred. Zazula’s conclusion in this regard rests on a speculative theory about burner control knobs that even the homeowners dispute. But from that questionable premise, Zazula observed that a fire occurred, and jumped from Point A to Point C. He concluded that the fugitive gas must have caused the fire, without doing any of the work necessary to reach that conclusion. Specifically, and by his own admission, Mr. Zazula did not test, measure, or take into account any of the factors he identified as impacting gas accumulation. Instead, he simply concluded that the fire itself is proof that the conditions were right for ignition at the time of the fire.

Mr. Zazula's results-oriented approach, which fails to consider the very factors he contends are important, lacks a reliable methodology, and should not be admitted at trial. See Booth, supra; Maldonado, supra; Steffen, supra.

- b. Mr. Zazula's opinions regarding the refrigerator as the ignition source are not supported by a reliable methodology.

Mr. Zazula's opinions regarding the refrigerator as the ignition source are likewise unreliable. Neither he nor Mr. Spadt actually inspected the refrigerator. See Exhibit "F" (Zazula dep.) at 255:23-256:9; see also Exhibit "G" (Spadt dep.) at 203:20-204:10. During his investigation Mr. Spadt ruled out several other possible sources, such as a nearby trash can. See Exhibit "B" (Spadt rpt.) at 9-11. Though he did not rule out the refrigerator, neither Spadt nor Zazula made any affirmative observations that the refrigerator ignited the fire. See Exhibit "F" at 258:15-24; Exhibit "G" at 204:12-19. Again, they simply did not inspect that appliance.

This "method," eliminating various possible ignition sources and then claiming that a remaining, un-ruled out possibility must be the source, *without any supporting evidence that it was*, is known as the "negative corpus," and has been disavowed by NFPA 921. See Steffen, 948 F. Supp. 2d at 443. The 2017 edition of NFPA 921, the edition in effect at the time of Mr. Zazula's and Mr. Spadt's investigation, is emphatic in its rejection of the negative corpus method:

The negative corpus process is not consistent with the scientific method, is inappropriate, and should not be used because it generates untestable hypotheses, and may result in incorrect determinations of the ignition source and first fuel ignited.

NFPA 921 § 19.6.5; see also Steffen, supra (quoting nearly identical language from the 2014 edition of NFPA 921).

This unscientific negative corpus is precisely the method by which Mr. Zazula reached his conclusion that the refrigerator was the ignition source for the fire. At the risk of being

repetitive, *Mr. Zazula did not inspect the refrigerator.* See Exhibit “F” (Zazula dep.) at 255:23-256:9. Nor did he look behind the refrigerator, and so did not observe the contact relay, the component he contends could have caused this fire. See id. at 241:21-245:18 (identifying contact relay as component at issue); see also id. at 256:4-9 (Zazula did not look at the contact relay). To the extent Mr. Zazula is relying on Roger Spadt for this determination, Mr. Spadt also did not inspect the refrigerator, and did not inspect the contact relay. See Exhibit “G” (Spadt dep.) at 203:20-204:10.

Mr. Zazula’s and Mr. Spadt’s failure to look at the rear of the refrigerator is all the more important because *not all refrigerators even have contact relays.* See Exhibit “H” (Hoffmann dep.) at 114:11-115:2 (“Well, most refrigerators nowadays in the compressor area use a PTC” rather than a contact relay). So not only does Mr. Zazula lack a basis to say that the refrigerator ignited the fire, he does not even have a basis to say the refrigerator has the component he contends could have done the igniting.

The district court in Steffen precluded expert opinion that utilized this “negative corpus” methodology, emphasizing that it is inconsistent with the scientific method, and inconsistent with the NFPA 921 guidelines the expert had claimed to have followed. See Steffen, 948 F. Supp. 2d at 443-44. The same result should obtain this case.

**MARSHALL DENNEHEY WARNER
COLEMAN & GOGGIN**

By: /s/ Michael A. Salvati
 MICHAEL A. SALVATI
 Attorney ID. No. 311682
 Attorney for Defendants
 2000 Market Street, Suite 2300
 Philadelphia, PA 19103
 215-575-4552 (P) / 215-575-0856 (F)
masalvati@mdwcg.com